Amendments to the Specification:

The paragraphs below correct the paragraphs (SEQ ID NOs shown underlined) submitted in the February 24, 2004 Amendment. The paragraph numbering in the February 2004 Amendment was incorrect and inconsistent with the instant application.

[0044] Figure 1(A) shows an exemplary single pin loop SERS molecular probe (SMP) 100 when its complementary target sequence is not present. SMP 100 includes a middle loop sequence 110 comprising an exemplary 20-base oligonucleotide sequence which is complementary to the gag gene region of the HIV1: (ATAGTGGATCTTGAAATTTA) (SEQ ID NO:1). Middle loop sequence 110 has first and second 7-nucleotide-long stem sequences 140 and 120 attached to its respective ends, CGATTCA and GCTAAGT. Typically, the middle loop sequence will include 16 to 25 bases, while the stems 140 and 120 will generally each include 5 to 8 bases. However, loop sequences and stem sequence lengths can be above or below these ranges.

[0091] As noted earlier, SMP 100 shown in FIG. 1(A) has a middle portion 110 having a 20-base oligonucleotide sequence complementary to the gag gene region of the HIV1: (ATAGTGGATCTTGAAATTTA) (SEQ ID NO:1). The middle region has two 7-nucleotide-long stem sequences 120 and 140, each from each side: e.g, CGATTCA and GCTAAGT.

[0092] Under normal conditions, when the target sequence of the gag region of the HIV1, TATCACCTAGAACTTTAAAT (SEQ ID NO:2) is not present, the two stem regions of the SMP probe 120 and 140 are hybridized to each other since they have complementary sequences, thus forming a stemmed loop which brings the SERS label 118 and metal comprising nanoparticle 115 in close proximity. Therefore, upon irradiation by a radiation source such as a laser, a strong SERS signal from the SERS label can be recorded.

[0093] When target sequences containing a sequence of the gag region of the HIV1, TATCACCTAGAACTTTAAAT (SEQ ID NO: 3) is present in the sampling area, hybridization occurs between the target and middle loop sequence 110, inducing a conformation change that separates the stem sequences 120 and 140 of SMP 100. Separation of the stems of SMP 100 results in an increased separation distance between the label molecule 118 and the metal comprising nanoparticle 115. This process produces a disappearance (or substantial decrease) in the SERS signal from the label molecule 118. Such a SMP technique can be very sensitive since single-molecule detection of SERS labels such as CFV, Rhodamine-6G or Rhodamine B can be achieved.